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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,982	06/27/2005	Herve Simoens	T3599-10197US01	9269

181 7590 04/09/2007
MILES & STOCKBRIDGE PC
1751 PINNACLE DRIVE
SUITE 500
MCLEAN, VA 22102-3833

EXAMINER

HOGAN, JAMES SEAN

ART UNIT	PAPER NUMBER
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3752

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/540,982

Applicant(s)

SIMOENS, HERVE

Examiner

James S. Hogan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers.

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "cross-section area (E) of the inlet being equal to the cross-section area (S) of the outlet" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 18 and 19 are objected to because of the following informalities: they claim the exact same subject matter with no derivation towards any additional embodiment. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3-7, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,050,805 to Lloyd et al.

Regarding claim 1, Lloyd et al discloses (See figure 3) an accessory to be mounted onto an outlet conduit comprising a tube (10) having an axial passage where the cross section area first decreases (at (7)) towards an outlet (17) to a smallest cross section (at (8)) forming a convergent section, and then increases from the smallest cross-section, thus forming a divergent section. As per claim 3, the outlet area (17) is greater than the inlet area (7). As per claims 4-6, 18 and 19 the cross-section area depicted in Figure 3 shows the area at (8) being at a ratio of 0.72 of the area depicted at (7). As per claim 7, the cross-section area depicted in Figure 3 shows the area at (17) being at a ratio of 0.53 of the area depicted at (7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,050,805 to Lloyd et al.

The rejection of claims 1 and 17 above serves as the basis for the following. Lloyd et al does not teach the inlet (7) and outlet (17) areas as being equal (thus having a 1/1 ratio to each other). Lloyd et al teaches that the illustrations are "not intended to be exhaustive or limit the invention to the precise formed disclosed" (Col. 9, lines 30-32), leaving it to be obvious to one having ordinary skill in the art at the time the invention was made to make the inlets and outlet equal since such a modification is seen to be common, as making inlets and outlets the same size would require less tools to manufacture, than thus, less cost. Further, as referenced in claim 20, the minimum cross section at (8) is depicted as being larger than 1/3 of either the inlet (7) or outlet (17).

Claims 8-16 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,830,230 to Simoens in view of U.S Patent No. 5,050,805 to Lloyd et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2). The rejection of claim 1 above serves as the basis for the subsequent rejection of claim 8, to be found below.

As per claim 9, Simoens teaches an air blast device having an inlet (3), outlet (5), and a control valve (16), but does not teach an attached accessory. Lloyd et al discloses (See figure 3) an accessory to be mounted onto an outlet conduit comprising a tube (10) having an axial passage where the cross section area first decreases (at (7)) towards an outlet (17) to a smallest cross section (at (8)) forming a convergent section, and then increases from the smallest cross-section, thus forming a divergent section. As per claim 11, the outlet area (17) of the accessory of Lloyd et al is greater than the inlet area (7). As per claims 12-15, the cross-section area depicted in Figure 3 shows the area at (8) being at a ratio of 0.72 of the area depicted at (7). As per claims 8 and 16, neither

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Simoens or Lloyd et al teach the placement of the smallest cross section being at one meter from the seat of the valve; however, such a distance is regarded as an optimum value, and it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the smallest cross sectional area of the nozzle of Lloyd et al one meter from the valve seat of Simoens, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)). Summarily it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the air blast nozzle of Simoens with the accessory of Lloyd et al in order to create an optimum air blast in a furnace based on plausible results.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows

U.S. Patent No. 6,845,928 to Felgen

U.S. Patent No. 6,962,317 to Simoens


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Hogan whose telephone number is (571) 272-4902. The examiner can normally be reached on Mon-Fri, 7:00a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSH
3/27/2007


Joseph A. Kaufman
Primary Examiner
4/2/07